

What is claimed is:

1. An automatic saw comprising:

a serrate blade;

a blade holder connected to the serrate blade at one end thereof;

a plunger arranged at the other end of the blade holder and arranged inside a housing as slidable in the housing;

an engagement piece secured to the plunger inside the housing having an engagement long hole formed at a side surface of the engagement piece, the engagement long hole extending in a direction perpendicular to an extending direction of an axis of the plunger;

an air motor rotatable of a crank shaft inserted in and engaged with the engagement long hole via the a side opening formed in the housing; and

a motor housing covering the motor rotatably coupled to the side opening,

wherein rotational force of the crank shaft according to operation of the air motor is converted to back and forth reciprocal movement of the serrate blade via the engagement long hole and the engagement piece.

2. The automatic saw according to claim 1, wherein the housing is capable of reducing an inner diameter of the side opening of an outer peripheral wall thereof by forming a slit at the outer peripheral wall extending in an axial direction from the side opening, and wherein, where coupled to the side opening, the motor housing is immobilized as an outer periphery of the motor housing is fastened to an inner surface of the side opening when the inner diameter of the side opening is reduced and is arranged as adjustable of a positional angle of the motor housing with respect to the axial direction of the serrate blade when the inner diameter of the side opening is widened.

3. The automatic saw according to claim 1 or claim 2, wherein the housing secures a support placed by a side surface of the serrate blade to render impossible contact between a portion of the serrate blade placed by the support and a workpiece during cutting operation of the workpiece done by the serrate blade, and wherein a portion of the serrate blade to be in contact with the workpiece is adjustable by rendering the support movable in the axis direction of the serrate blade.